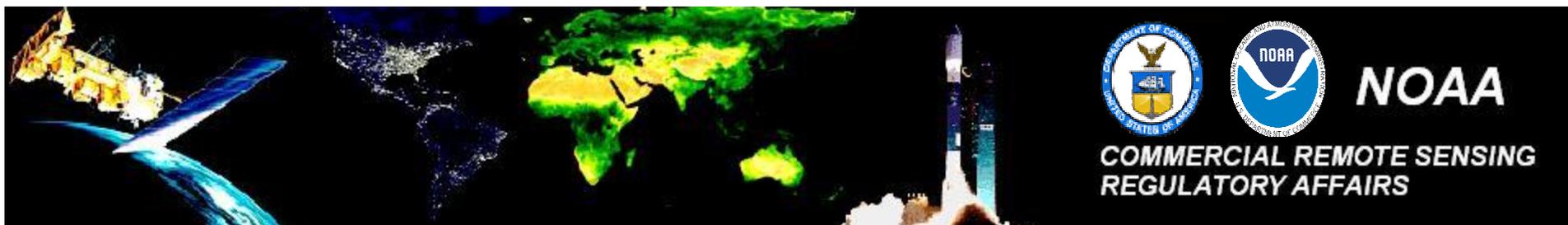


# Overview of NOAA's Commercial Remote Sensing Regulatory Affairs Office

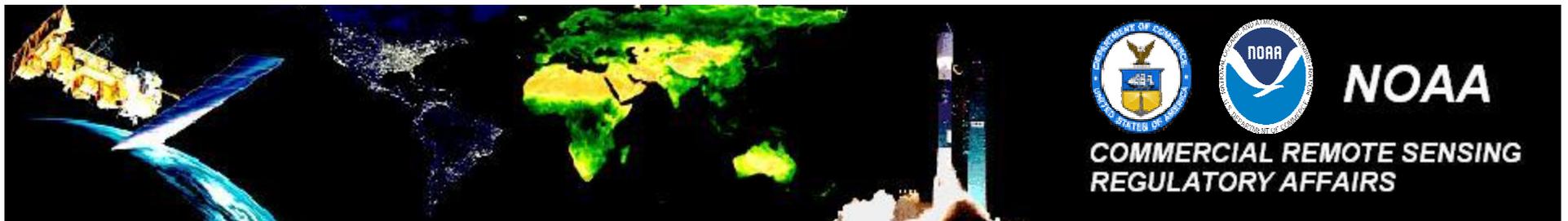
Jane D'Aguanno  
Director

March 31, 2009

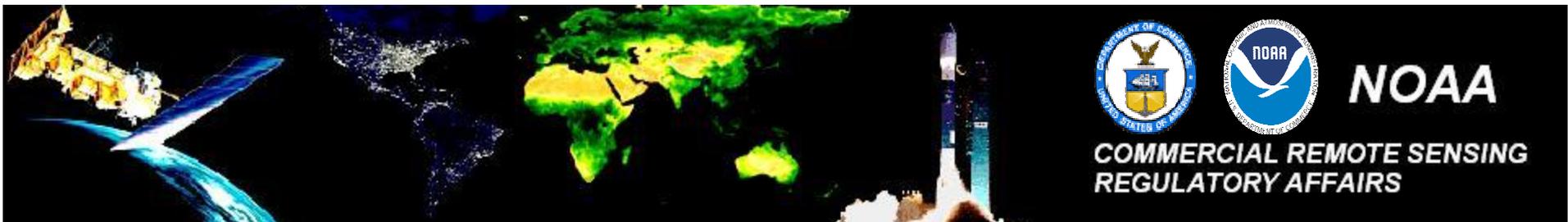
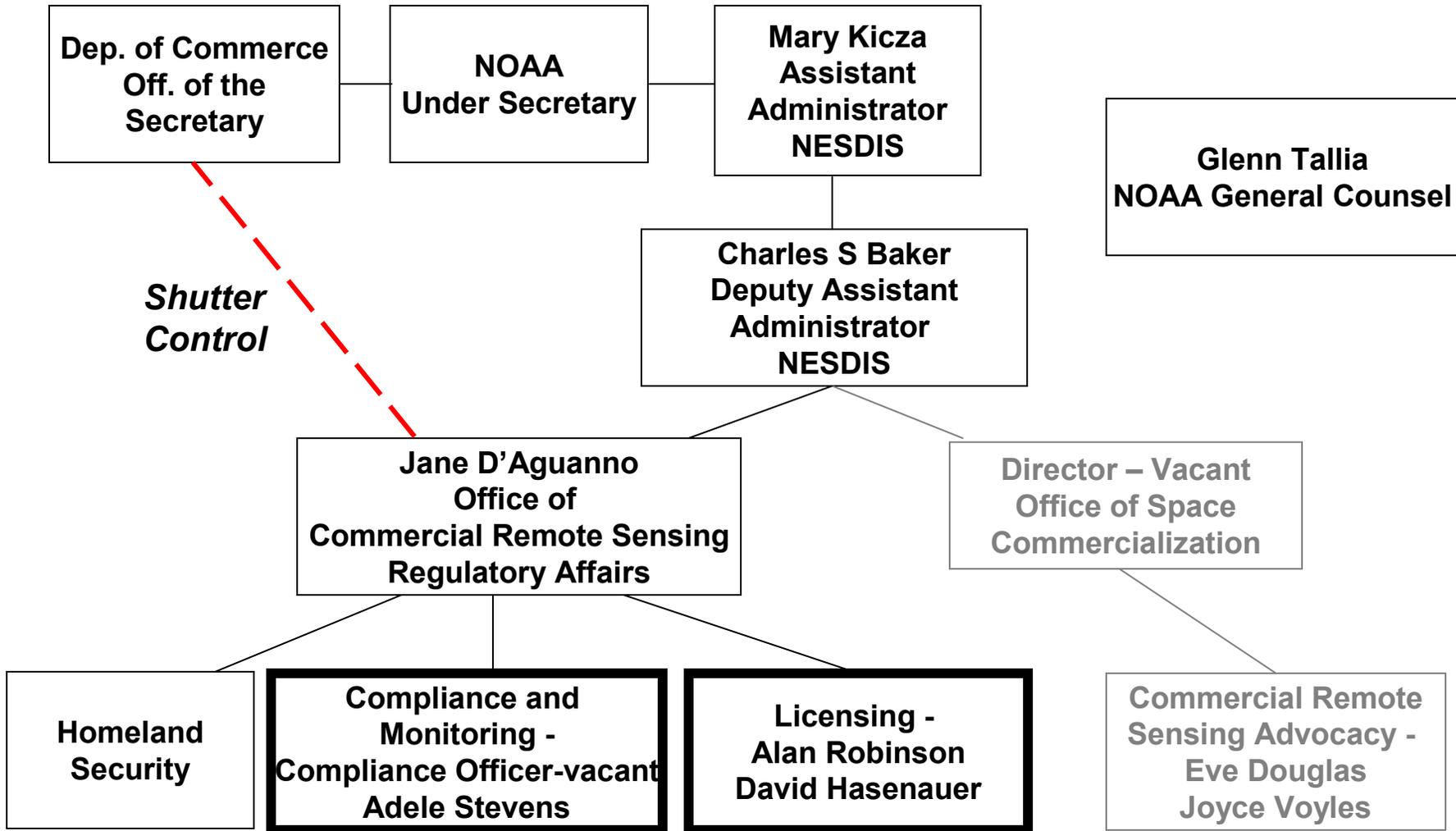


# Commercial Remote Sensing in NOAA

- **The Land Remote Sensing Policy Act of 1992 as amended (the Act), provides no person who is subject to the jurisdiction or control of the U.S. may operate any private remote sensing space system without a license**
- **It authorized the Secretary of Commerce to license private sector parties to operate private remote sensing space systems. By law, the Secretary can grant a license only upon determining, in writing that the applicant (licensee) will comply with the requirements of the Act, any regulations issued pursuant to the Act and any applicable international obligations and national security concerns of the United States.**
- **In order to discharge these responsibilities under the Act, the Secretary delegated authority to the National Oceanic and Atmospheric Administration (NOAA)**
- **NOAA delegated authority to the Assistant Administrator to the National Environmental Satellite, Data and Information Service (NESDIS)**



# Commercial Remote Sensing Activity in NOAA



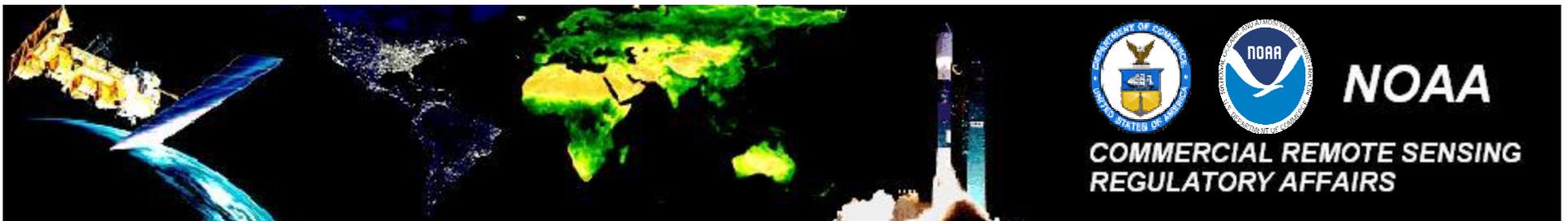
# Mission and Vision

## Mission:

**Commercial Remote Sensing Regulatory Affairs Office (CRSRAO) regulates the operation of private earth remote sensing space systems, subject to the jurisdiction or control of the United States, while preserving essential national security interests, foreign policy and international obligations.**

## Vision:

**To balance commercial viability of private Earth remote sensing space systems and sound regulatory practices and policies while protecting national security, foreign policy and international obligations.**



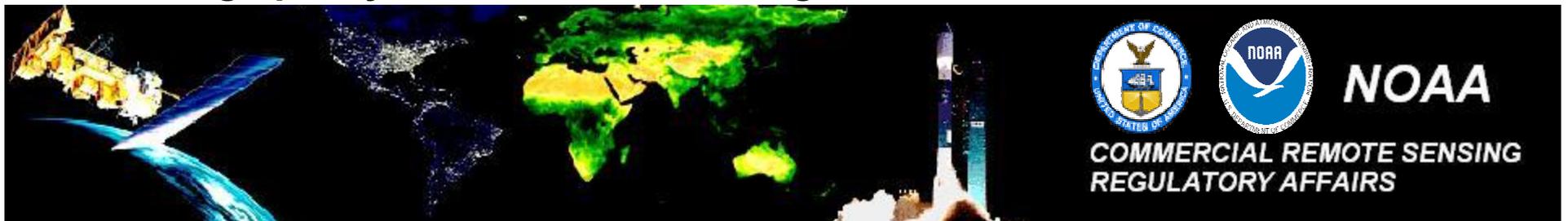
# Legal and Policy Authority

## Authority for Licensing and Enforcement Activity:

- NOAA private remote sensing space system operating License
- **Land Remote Sensing Policy Act of 1992** (P.L. 102-555; 106 Stat. 4163 (1992); 15 U.S.C. Sect. 5601, et seq.)
- **15 CFR Part 960, Licensing of Private Land Remote-Sensing Space Systems**  
71 F.R. 24474, April, 25, 2006.
- **Defense Authorization Act of 1997, the Kyl-Bingaman Amendment**

## Policy guidance assured:

- **U.S. Commercial Remote Sensing Policy, April 25, 2003**
- **U.S. national security interests**
- **Foreign policy and International obligations**



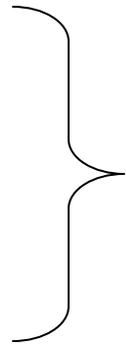
# Who We Work With

**Department of Defense**

**Department of Interior**

**Department of State**

**Intelligence Community**



**Interagency Review for Licensing Actions**

**Department of Treasury/Office of Foreign Asset Control**

**Department of Commerce**

**International Trade Administration/Office of Aerospace**

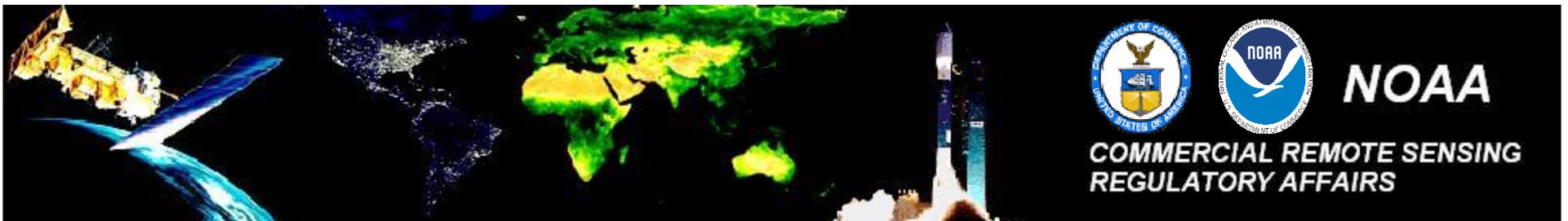
**Office of Space Commercialization**

**Bureau of Industry and Security**

**White House**

**National Security Council**

**Office of Science and Technology Policy**





License to Operate a Private Remote Sensing Space System

Licensee:

Corporate Affiliation:

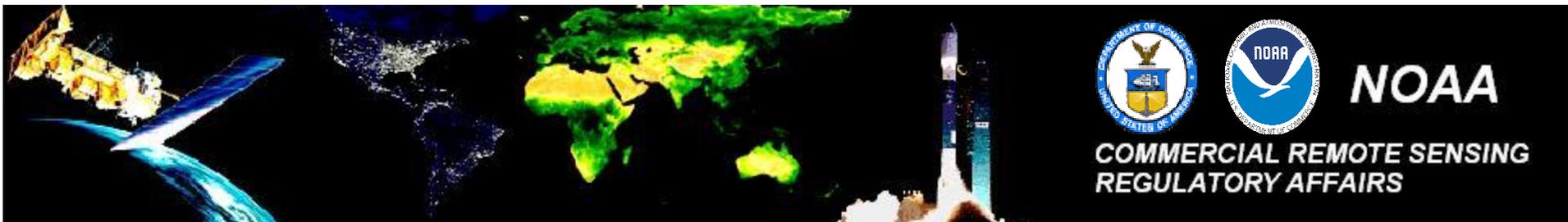
Name of System:

Type of System:

# It all starts with the License application

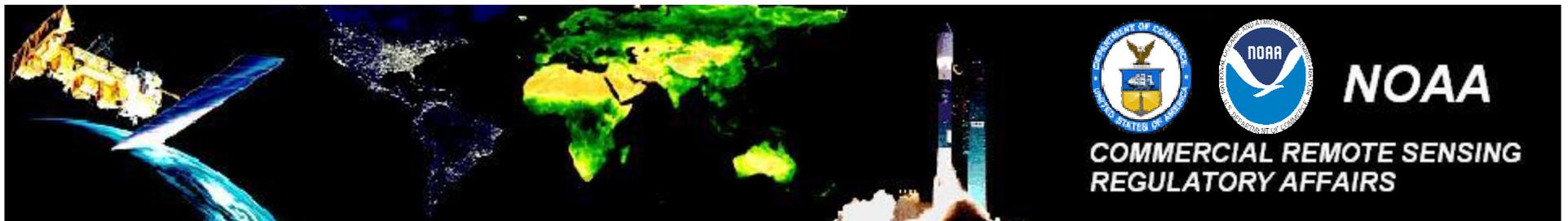
1. Grant of License

- a. The National Environmental Satellite, Data and Information Service of the National Oceanic and Atmospheric Administration (NOAA), an agency of the U.S. Department of Commerce, hereby grants to (herein, or "the Licensee"), a License ("the License"), to operate the Licensee's private remote sensing space system described below at Section 3 of this License ("the System"), consistent with the terms of this License. This License's terms and conditions reflect, among other significant provisions, the system parameters and operating conditions approved by the Secretary of Commerce, or his or her delegate ("the Secretary").
- b. This License is granted under the authority of Title II of the Land Remote Sensing Policy Act of 1992 ("the Act"), (P.L. 102-555, 15 U.S.C. §§ 5601 *et seq.*), as amended by the Commercial Space Act of 1998 (P.L. 105-303); the regulations promulgated thereunder, 15 CFR Part 960 ("the regulations"); and the U.S. Commercial Remote Sensing Space Policy of April 25, 2003.
- c. The Licensee shall ensure that the information provided to NOAA and relied upon in issuing this License, and/or any subsequent licensing action, is current and accurate. Consistent with the time limits set forth in the regulations and this



# Regulations – 15 CFR Part 960

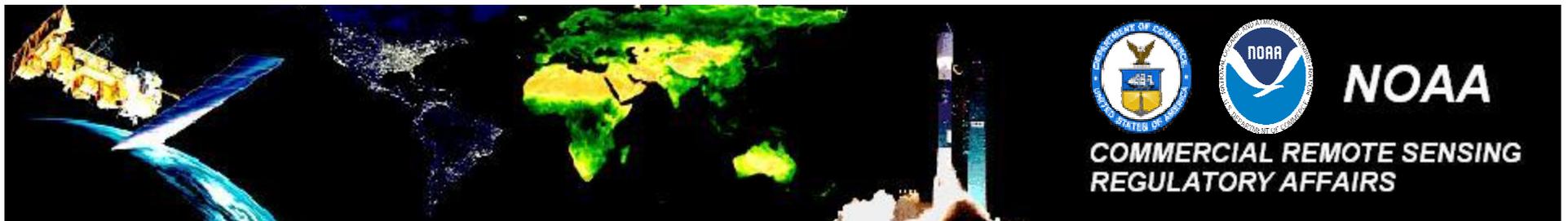
- **Focuses on operations of the Remote Sensing System**
- **Broadly defines Remote Sensing System to include the finite number of satellites, and associated facilities including those for tasking, receiving and storing data**
- **Requires data protection plans which describe how licensee plans to protect data and information through the lifecycle of tasking, operations, processing, archiving, and dissemination**
- **Requires annual audits and inspections of facilities and that an annual tasking log be maintained and provided to NOAA**
- **Provides information on**
  - Application Process (960.4, Appendix-1)**
  - Conditions of Operations (960.11)**
  - Foreign Agreements (960.8)**
  - Prohibitions (960.13)**
  - Enforcement Procedures (960.14)**



# General Conditions 15 CFR 960.11

**As a minimum licensees shall:**

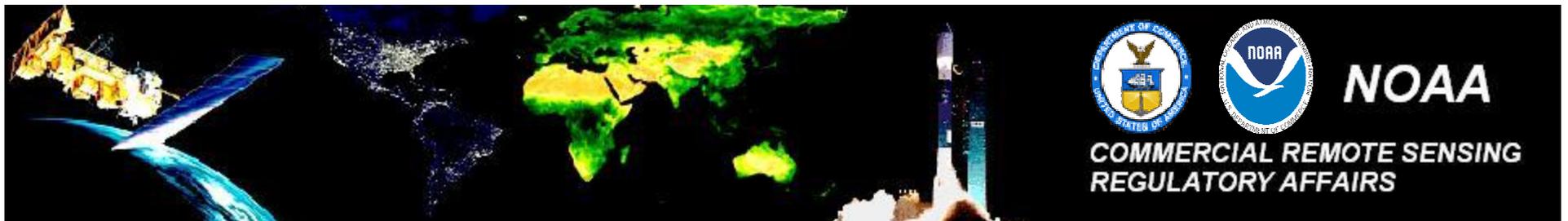
- **Operate System in a Way to Preserve National Security and observe Foreign Policy/International Obligations of the US**
- **Maintain Operational Control from within the US**
- **Maintain Records of Operations and Make Available**
- **Limit Collection and/or Dissemination as Required**
- **Notify NOAA of Foreign Agreement**
- **Report Deviations and Anomalies**
- **Make Data Available to Dept of Interior**
- **Dispose of System in manner approved by Assistant Administrator**
- **Submit a Data Protection Plan**



# Licensing Responsibilities

10

- **Review/analyze all licensee submissions and prepare for appropriate action**
  - **new applications**
  - **foreign agreements**
  - **amendments**
- **Prepare summary report of each action for Director and the record**
- **Coordinate Interagency review providing summary analysis of the action**
- **Monitor the time lines once out for review so as to assure compliance with Statutory requirements**
- **Analyze information from Interagency, and prepare package for decision back to the licensee**
- **Stay current on Licensee activities through research, Compliance reporting**
- **Stay current on international space activity**
- **Training on technology advances to stay abreast of industry changes**



# Compliance and Monitoring - Are They What They Say They Are?

**'Dirty Bomb' Materials  
Easy to Get, GAO Finds**

**NUCLEAR** From A-1

enough to build a bomb with enough radioactive material to qualify as a level 3 threat on the International Atomic Energy Agency's scale of 1 to 5, with 1 being the most hazardous.

The GAO investigators never took possession of the radioactive material, in part because they lacked the means to handle it safely. But the report notes that, armed with an arsenal of phony licenses, they could have secured contracts to buy much more than they did — enabling them to purchase an even more lethal bomb of radioactive material so that it appeared our bogus company could buy much more unrestricted quantity of radioactive material, the report says. A dirty bomb is designed to cause injury to people, contaminate buildings, and cause a local health hazard.

## The Washington Post

DISTRICT & MARYLAND HOME EDITION 35¢

### Sting Reveals Security Gap at Nuclear Agency

By KATHLEEN DAY  
Washington Post Staff Writer

Undercover congressional investigators posing as West Virginia businessmen obtained a license with almost no scrutiny from the Nuclear Regulatory Commission that enabled them to buy enough radioactive material from U.S. suppliers to build a "dirty bomb," a new government report says.

The investigators obtained the license within 28 days from officials at the NRC, the federal agency that in addition to regulating nuclear power plants oversees radioactive materials used in health care and industry, the report by the Government Accountability Office says. NRC officials approved the request with a minimal background check that included no face-to-face interview or visit to the purported company to ensure it existed and complied with safety rules, the report says.

Using a post-office box at Mail Boxes Etc., a telephone and a fax machine, the undercover investigators from the GAO obtained the license "without ever leaving their desks," the report says.

After counterfeiting copies of the license, the GAO undercover agents ordered portable moisture density gauges, which contain radioactive americium-241 and cesium-137 and are commonly used at construction sites to analyze the properties of soil, water and pavement. The investigators ordered 45 gauges —

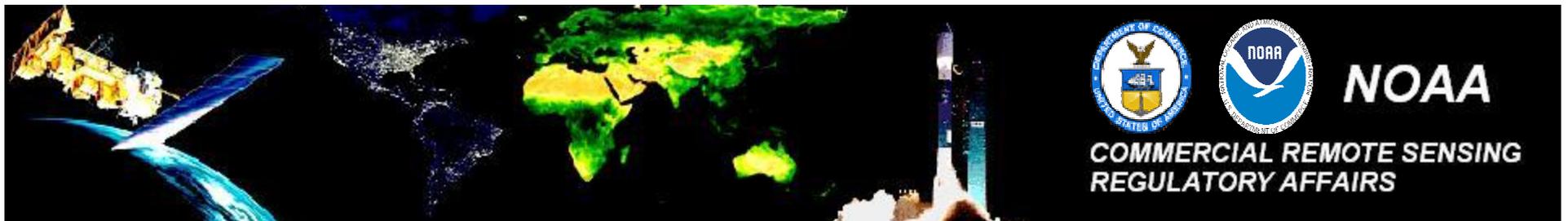
...overcome required to deal NRC. That's be...  
...dozen states, including Vir...  
...that don't have their own system for...  
...issuing licenses for the handling of...  
...radioactive material and monitoring...  
...those who apply for them. During the...  
...phony official spreading to one of the...  
...businessmen on the phone...  
...him on hold for a minute or two...  
...gusing his voice but pretending to...  
...be his boss, according to people fa...  
...miliar with the call without dis...  
...calls at face value. The NRC reviewe...  
...By contrast, the GAO investigation...  
...Maryland, which is one of 34 states...  
...that under agreement with the NRC...  
...conduct their own licensing. Mary...  
...land officials told the disguised GAO...  
...employees that state inspectors




**NOAA**  
COMMERCIAL REMOTE SENSING  
REGULATORY AFFAIRS

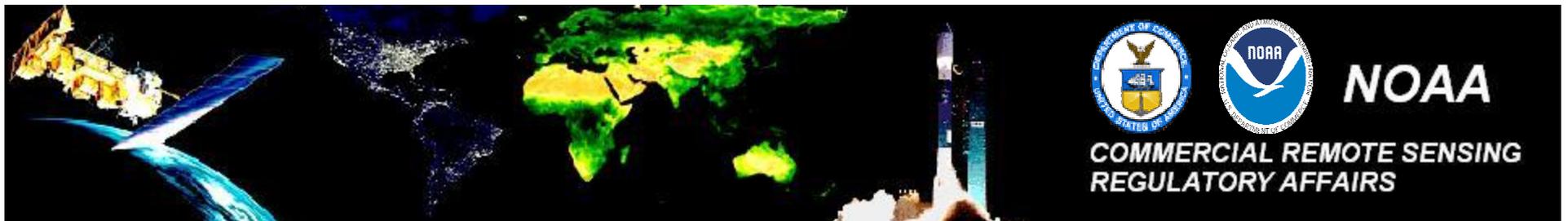
# What We Do

- **The Compliance staff executes its regulatory mission by:**
  - **Conducting:**
    - **Baseline audits and inspections for all new applications**
    - **Annual audits and on site inspections of all licensees**
    - **Inspections at all foreign ground stations annually**
  - **Collecting and reviewing:**
    - **Quarterly reports**
    - **Appropriate financial information**
    - **Tasking logs from all operational satellites**
    - **Plans and procedures to comply with data collection restrictions, operational limitations**
    - **Data protection plans including encryption requirements**
    - **Information required to be filed at specific points in time prior to launch of a remote sensing space system**
    - **Reviewing licensee agreements impacting national security, foreign policy and international obligations of the U.S.**

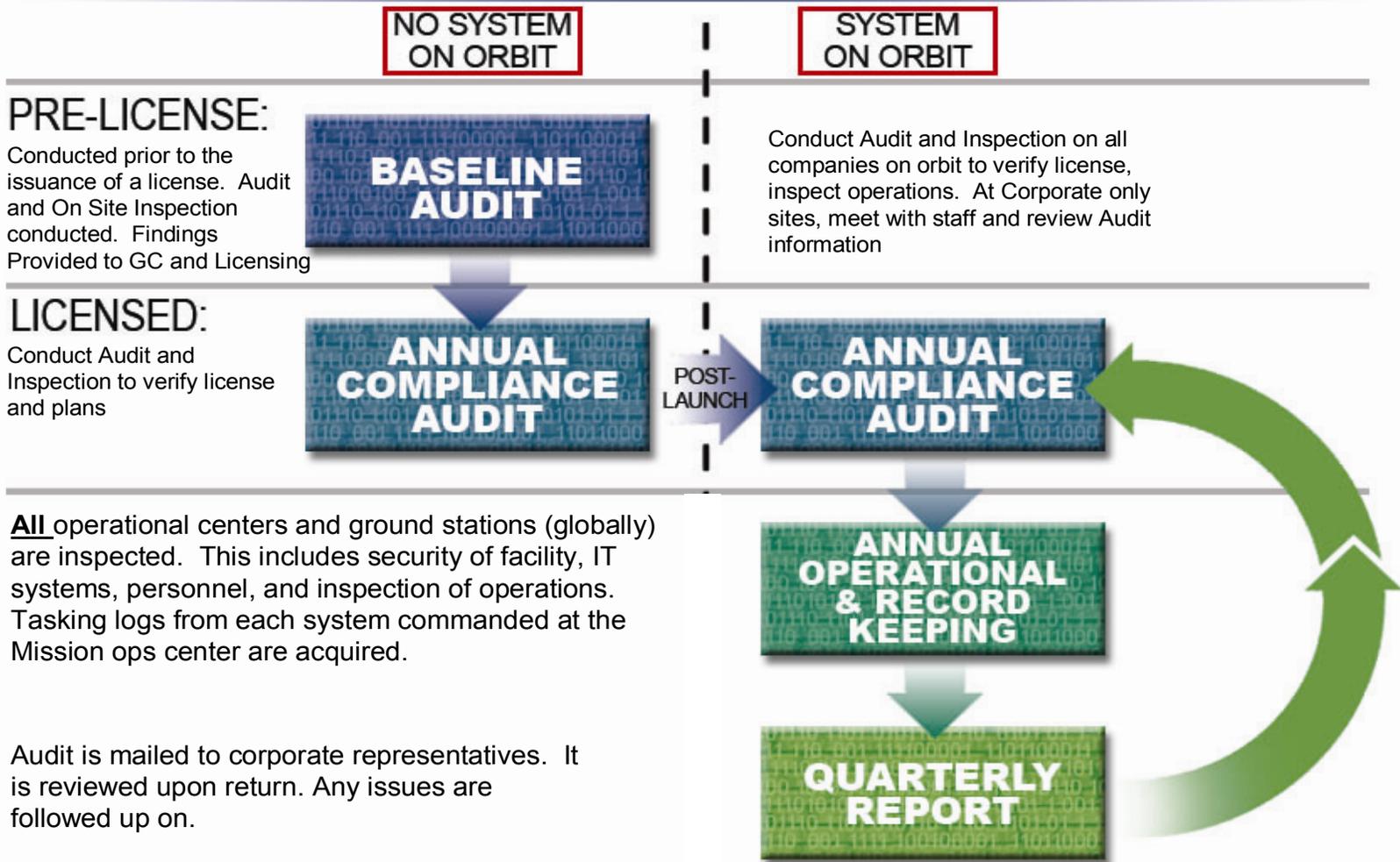


# What We Do - Continued

- **Assuring compliance with the *Kyl-Bingaman Amendment***
- **Initiating appropriate enforcement actions to assure compliance with law, regulations and terms of the private remote sensing space system license.**
- **Consulting with NOAA Licensing, the Departments of Defense and State, and other federal agencies in developing and executing U.S. commercial remote sensing laws, regulations and policies.**
- **Carrying out orders for Limitations on Remote Sensing Data and Imagery Collection and or Dissemination (Shutter Control)**



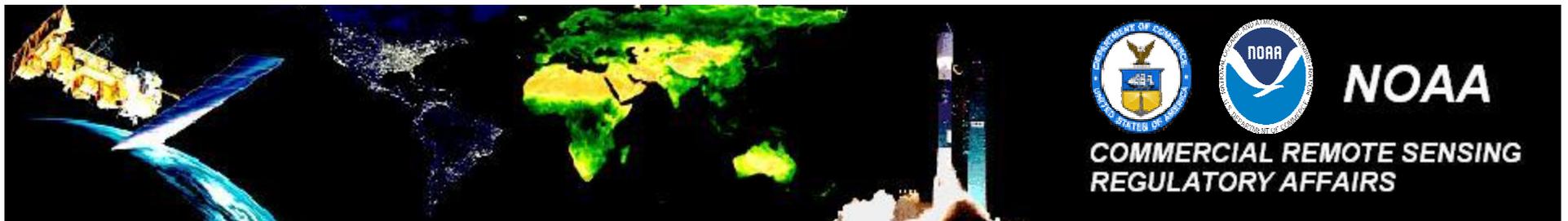
# AUDIT CYCLE



# Launch Responsibilities

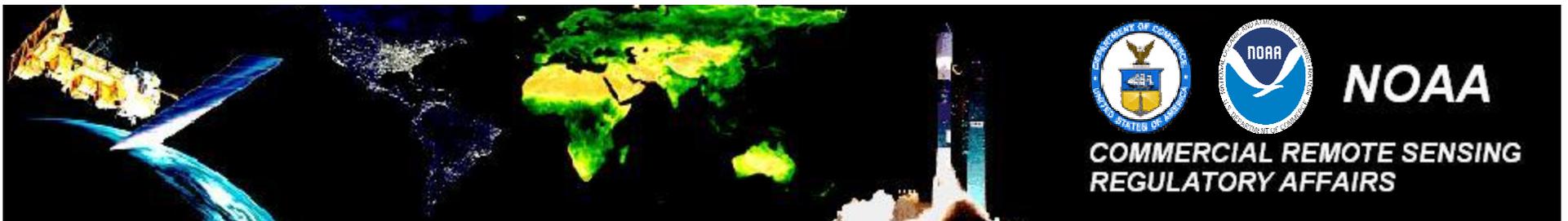
## Steps Prior to Launch

- **Twelve months prior to projected launch date must submit Data Protection Plan**
- **Six months prior to projected launch date licensee provides system and sensor information**
- **Thirty days prior to launch or sooner, on-site inspection of satellite and sensor integration**



# Launch Responsibilities

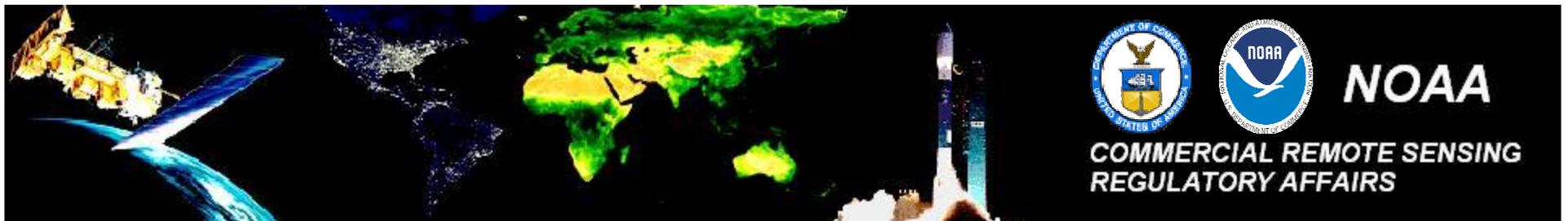
- **Before Licensee can begin commercial sales:**
  - **Post Launch: spacecraft is declared operational, the licensee submits documentation and NOAA visits Mission Control Center to verify:**
    - **Spacecraft designation number**
    - **Orbital altitude**
    - **Orbital inclination**
    - **Spacecraft state of health**
    - **Imaging system state of health**
    - **Spatial resolution**
    - **Spectral resolution**
    - **On-orbit absolute geo-positioning accuracy**
    - **Circular error and linear error**



# Why We Visit

*Independent validation and verification of license, audit information, data protection plans and foreign agreements*

- In addition:
  - Remind Licensee of Reporting Requirements:
    - System anomaly/deviation reporting requirements (info card), corporate changes, change of address/contact information, launch slips
  - Specific issues relevant to each licensee are discussed
    - File information; previous violation remediation
  - Discuss any changes within the Office such as new web site, procedural changes, new staff etc.



# Summary

- **The CRS Regulatory Affairs Office highly**
  - **Visible**
  - **Responsible**
  - **Accountable**
- **Focused on helping Licensees operate in accordance with laws, regulations, license terms and conditions so they remain compliant**
- **Striving to know Licensees and their programs**
- **Committed to ensuring that U.S. national security and foreign obligations are preserved**
- **Committed to fostering viable commercial industry**

